

U.S. Department of Labor

Office of Administrative Law Judges
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DATE: April 7, 2000
CASE NO.: 1999-MSA-6

In the Matter of

METTIKI COAL, LLC
(Formerly METTIKI COAL CORPORATION)
[METTIKI MINE, #18 - 00621]
Petitioner

v.

MINE SAFETY & HEALTH ADMINISTRATION
Party Opposing Petition

and

MR. JOHN BATEMAN (Representative of the Miners)
Party-In-Interest

Appearances: Mr. Timothy Biddle, Attorney
Ms. Sarah L. Seager, Attorney
For the Petitioner

Mr. Robert A. Cohen, Attorney
For the Mine Safety & Health Administration

Before: Richard T. Stansell-Gamm
Administrative Law Judge

INITIAL DECISION AND ORDER

This proceeding arises under Section 101(c) of the Federal Mine Safety and Health Act of 1977, ("Act" or "Mine Safety Act"), 30 U.S.C. §811(c), and its implementing regulations at 30 C.F.R. Part 44. Congress adopted the Mine Safety Act "to protect the health and safety of the Nation's coal or other miners." 30 U.S.C. §801(g). To effectuate its purpose, the Act requires the Secretary of Labor to develop detailed mandatory health and safety standards to govern the operation

of the Nation's mines. 30 U.S.C. §811. Mettiki Coal, LLC ("Mettiki" or "Petitioner")¹ has filed a petition for modification of the application of the mandatory safety standard in 30 C.F.R. § 75.1726 (a), (which prohibits miners working on, or from, a piece of raised mobile equipment unless it has been securely blocked in place) at the Mettiki mine, #18 - 00621("Mettiki Mine") in Garrett County, near Oakland, Maryland. The Mine Safety and Health Administration ("MSHA"), U.S. Department of Labor, opposes the petition.

Having considered the entire record as required by 30 C.F.R. § 44.32(b), I base my decision on the documents admitted into evidence: JX 1 to JX 6, PX 1 to PX 21 and MX 1 to MX 15,² and the testimony received at the hearing.

Procedural History

On April 22, 1998, Mettiki, through its counsel, Mr. Timothy Biddle, filed a Petition for Modification with the Office of Standards and Variances, MSHA (JX 1). Mettiki requested MSHA "to modify the application of 30 C.F.R. §75.1726 (a) to permit the use of a specially modified scoop as an elevated mobile work platform" at the Mettiki Mine #18-006211. According to Mettiki, MSHA has applied 30 C.F.R. §75.1726 (a) to preclude Mettiki's use of a modified scoop to move miners from one work station to another work station while hanging power cables.

On August 28, 1998, Mr. Mac Porter, a MSHA coal mine inspector, completed his investigative report of the modification petition and concluded the proposed modification would not provide at least the same measure of safety as the regulatory standard (JX 2). A few days later, Mettiki submitted its response and objection to the investigative report (JX 3). On April 20, 1999 MSHA issued its proposed Decision and Order denying Mettiki's Petition for Modification (JX 4). Less than a month later, on May 14, 1999, Mettiki requested a hearing with the Office of Administrative Law Judges ("OALJ") (JX 5). OALJ received the case file on May 24, 1999.

Pursuant to an amended Notice of Hearing, dated July 30, 1999 (ALJ II),³ I conducted a hearing in Oakland, Maryland on September 23 and 24, 1999. The following representatives were present: Mr. Timothy Biddle, Ms. Sarah Seager, Mr. Horace Theriot, Mr. Robert Cohen, Mr. Donald

¹According to Mr. Biddle, in August 1999, Mettiki Coal Corporation merged with Mettiki Coal, LLC; the resulting entity is Mettiki Coal, LLC (Transcript, page 14).

²The following notations appear in this decision to identify specific evidence: JX - Joint exhibit; PX - Petitioner exhibit; MX - MSHA exhibit; ALJ - administrative law judge exhibit; and TR - Transcript of hearing. PX 1 and PX 2 have markings drawn by counsel during the testimony of witnesses (see TR, page 393). PX 15 is a VHS videotape produced by Crabtree Photo & Video. The record also includes the Mettiki petition for modification (JX 1), the MSHA investigative report (JX 2), and the Mettiki request for a hearing (JX 5).

³This notice of hearing essentially continued the previously scheduled hearing date of September 14, 1999, established by the initial Notice of Hearing, dated June 17, 1999 (ALJ I). A protective discovery order issued July 30, 1999 is ALJ III.

Braenovich, and Mr. Mack Porter.⁴

Mettiki's Statement of the Case

In light of the legal standards for reviewing a petition, the determination in this case must go beyond the literal language of the standard and address how MSHA is applying the standard to the Mettiki Mine.⁵ According to Mettiki, MSHA uses the standard to preclude the movement of miners from one work station to another. Consequently, Mettiki, in addition to satisfying the blocking requirement, seeks modification of the application of the standard to permit movement of miners in the modified scoop when the hydraulic locking devices are activated.

Under both legal standards of review, the petition to modify the application of 30 C.F.R. §75.1726 (a) at the Mettiki Mine should be granted. First, MSHA's application of 30 C.F.R. §75.1726 (a) at the Mettiki Mine diminishes safety at the mine. Because MSHA does not permit the transport of miner's in the scoop from work station to work station, miners in the Mettiki Mine must use a less safe alternative of ladders. The use of ladders exposes the miners to a variety of dangers, including slip and fall injuries. In addition, the alternatives suggested by MSHA are not viable methods for the hanging power lines in the Mettiki Mine.

Second, the alternative method proposed by Mettiki provides at least the same measure of safety as the present standard and also enhances overall safety in the mine. Specifically, if miners are able to use a modified scoop for elevated work, they no longer have to work from ladders. Overall safety is improved because the procedure eliminates two hazards associated with doing heavy work from ladders: slip and fall and exposure to wall collapses.

MSHA's Statement of the Case

MSHA asserts that Mettiki has failed to meet its burden of proof under the two step approach developed by the court in *United Mine Workers of America, Int'l Union v. MSHA*, 928 F.2d 1200 (D.C. Cir. 1991).⁶ A major portion of Mettiki's requested relief falls outside of the safety goals of 30 C.F.R. §75.1726 (a). In addition, because other methods of complying with the standard are available, Mettiki can not establish that compliance with the standard results in a diminution of safety. In fact, the use of ladders in the Mettiki Mine has not caused any significant hazards. The proposed modification also fails to meet the safety purpose of the standard

In considering a modification, an administrative law judge ("ALJ") has the authority under

⁴Although Mr. John Bateman, the party in interest, testified at the hearing (TR, pages 383 to 394), he did not otherwise participate in the hearing.

⁵TR, pages 16 to 18 and Mr. Biddle's closing brief, dated November 15, 1999.

⁶TR, pages 18 to 22 and Mr. Cohen's closing brief, dated November 15, 1999.

30 C.F.R. §44.4 to issue an order that contains special terms and conditions to assure adequate protection of miners. Consequently, an ALJ may grant partial relief in a modification proceeding. However, the most appropriate response is denial of the entire Mettiki petition.

Issues

1. Whether application of the mandatory standard established by 30 C.F.R. §75.1726 (a) in the Mettiki Mine will result in a diminution of safety to the Mettiki miners.

2. Whether Mettiki's proposed alternative method will guarantee no less than the same measure of safety afforded to the miners in the Mettiki Mine by 30 C.F.R. §75.1726 (a).

Summary of Evidence

Although I have read and considered all the evidence presented, I will only summarize below the information I found relevant in addressing the issues in this case.

Joint Evidence

Petition for Modification - JX 1

On April 22, 1998, Mettiki submitted a petition to modify the application of 30 C.F.R. § 75.1726 (a) to permit the use of a modified scoop as an "elevated mobile work platform" at the Mettiki Mine #18 - 006211, which is located in the Upper Freeport coal seam, having a typical mining height of eight to nine feet. In the normal course of the mine's operations, workers must raise material to, or secure equipment from, the roof of the mine. To comply with the current regulatory standard, the miners are required to use ladders, or stand on the frames of heavy equipment to reach the roof area. Use of ladders for this work is hazardous for two principal reasons. First, because the mine floor is loose and uneven, the ladders are subject to lateral and backward movement. Second, upon use, the ladder steps become wet, muddy, and slippery. Consequently, compliance with the standard results in "diminished safety."

Mettiki proposes an alternate approach to the safety standard which will achieve "no less than the same measure of protection afforded by that standard." Through the combination of several physical modifications and operating procedures, Mettiki would use a scoop as an elevated work platform instead of ladders. To ensure the miner's safety while using the scoop as a raised platform, Mettiki would make three mechanical alterations and impose three operational restrictions, as follows:

a) A locking pin will be installed on the bucket control lever panel in the scoop operator's cab to prevent accidental activation while miners are in the bucket;

b) Checks valves will be installed to prevent the scoop bucket from suddenly dropping if the

equipment experiences a sudden loss of hydraulic pressure;

c) Hand rails or equivalent devices will be installed when the bucket was raised higher than two feet from the mine floor;

d) The scoop operator will place the scoop transmission in neutral and set the parking brake;

e) The scoop operator will remain in the operator's cab the entire time the scoop is being used as a raised platform; and,

f) When the scoop is moving workers from one location in the mine to another, the scoop operator will lower the bucket to a safe tramming height.

Investigative Report - JX 2 (Also MX 2)

Following the submission of the petition, Mr. Mack Porter investigated the proposed modification and submitted his report in August 1998. He initially noted that at least one other mine company, operating in the same height of coal seam, hung its equipment and cables from the sides of the corridors at a height that permitted the miners to do their work standing on the mine floor. As a result, the other company did not use scoops or other mobile equipment to hang equipment. The inspector did not believe the slope of the mine floor was severe and expressed concern about the ability of the scoop operator to quickly react if a problem occurred while transporting the miners forward in the bucket. Based on his investigation, Mr. Porter concluded the proposal was not as safe as the regulatory standard.

Following his review of the Mettiki response to the initial report of investigation, Mr. Porter, in an undated memorandum, added a few additional comments to his report. Although the load locking levers protect against up and down motion, they do not preclude the scoop's lateral movement. The proposed chain across the front of the bucket poses a tripping hazard. And, in another metal/nonmetal mining standard, elevated equipment also has to be blocked to prevent lateral movement.

Mettiki Response to the Investigative Report - JX 3

In August 1998, Mettiki filed its response to the MSHA investigative report. The company noted that use of the load locking check valves satisfies the "secure blocking" requirement of the standard. The hazard addressed by the standard is sudden uncontrolled descent of the scoop.

Other MSHA regulations concerning metal and nonmetal underground mining, which address the same hazard, authorize the use of load locking valves to eliminate the free and uncontrolled descent of equipment. See 30 C.F.R. §§56/57.14211 (d). These rules were published fifteen years after the standard in 30 C.F.R. §75.1726 (a) and represent a more modern approach to the accidental dropping of work platforms. As a additional support, Mettiki pointed out that during the comment

phase of the proposed metal/non-metal safety standards, MSHA expressed concern, based on past accidents, about the danger of working around a front-end loader or scoop, or using such equipment as make-shift elevated platforms, even if load locking valves were used. However, when the regulations were issued, the use of load locking valves was cited as an acceptable compliance alternative for blocking raised platforms to prevent unplanned descent.

Mettiki then made several other observations. Procedures at other mines are not particularly relevant since the focus is application of the standard at the Mettiki Mine. Because the scoop has a wide wheel base, it provides greater stability than a ladder on the mine's un-level floor. The scoop will travel at slow speed and Mettiki will provide additional training for the scoop operators. Focus of the inquiry is not whether Mettiki should or should not hang its cables from the mine roof. The location of the cables is a company prerogative. In summary, the proposed alternative exceeds the minimum safety requirements of the standard.

Proposed Decision and Order - JX 4 (Also MX 1)

On April 20, 1999, the Administrator for Coal Mine Safety and Health, MSHA, ("Administrator") issued a proposed Decision and Order denying Mettiki's Petition for Modification. The Administrator noted that a scoop is not specifically designed for use as an elevated, mobile work platform. Consequently, according to 30 C.F.R. § 75.1726 (a), if the scoop bucket is used as a raised platform, it must "be blocked in place securely from all motion." The Administrator ordered the petition for modification denied because he found several reasons why the Mettiki's proposed modification does not provide the same level of safety as 30 C.F.R. § 75.1726 (a).

First, the standard requires securing the equipment from all motion. Not only must the scoop bucket be secured from inadvertent movement up and down, unplanned movement of the scoop vehicle itself must be prevented. The proposed use of load locking valves only addresses the vertical movement of the bucket. Mettiki's procedure of leaving the vehicle in neutral with the parking brake on is an insufficient measure to prevent the vehicle itself from slipping and moving on the uneven floor of the mine.

Second, the use of a lever guard to protect against the accidental activation of the scoop bucket controls is also less safe than the standard. In the event of an emergency, the guard may hamper the operation of the controls.

Third, accident records disclose that even with load locking valves have been installed, use of front-end loaders as work platforms has still caused fatal injuries when the scoop is inadvertently lowered or tilted.

Fourth, Mettiki's use of a chain across the front of the bucket poses a tripping hazard. Working out of the scoop which does not have a surface designed as a platform poses a slipping hazard. And, because the scoop bucket is not designed as a work platform, any work out of a raised scoop bucket is hazardous.

Fifth, tramming the workers forward after the scoop is lowered to two feet above the floor still poses a safety concern because a miner could be thrown out of the scoop and run over. In addition, scoops are not designed for the transportation of miners.

Mettiki Request for Hearing and Summary of Position - JX 5⁷

On May 14, 1999, within the regulatory time frame,⁸ Mettiki requested a hearing with the Office of Administrative Law Judges. Mettiki asserted its proposed modification of the standard did provide at least the same level of safety as the standard. In addition, application of the standard at the Mettiki Mine posed a safety hazard because it required miners to do heavy work from the hoods of other equipment or on ladders standing on uneven floors.

Mettiki entered several specific objections to the proposed Decision and Order. The standard in 30 C.F.R. § 75.1726 (a) does not require blocking against all motion, only inadvertent vertical descent. Load locking valves do provide secure blocking and MSHA has permitted their use in metal/nonmetal mining. Three of the four fatalities mentioned in the decision were caused by accidental activation of the scoop control. Mettiki proposes to physically lock the controls. The other fatality occurred when the operator failed to set the load locking valves. Mettiki will use an internal, automatic load locking device instead. Since the standard does not require handrails, installation of handrails and the chain, placed at a height to prevent tripping, will generate a net safety gain. By inference, the standard itself shows that other devices, in addition to specifically designed elevated platform equipment, may be used as a raised work area. Mettiki will not use the scoop for “man-trips.” The miners will be moved only a few feet at a time as they hang power cable from the ceiling.

Evidence for Mettiki

Sworn Testimony of Mr. Alan B. Smith (TR, pages 49 to 178)⁹

Mr. Alan Smith, a twenty-one year employee of Mettiki, has spent the last five years with the company as its manager of underground operations. His current responsibilities include health and safety of the miners, budgeting, planning, placement and movement of underground machinery, and general operation of the mine.

The Mettiki Mine contains “very, very soft” bituminous coal in seams ranging from seven to eleven feet high. Currently, the Mettiki Mine’s 160 miners and 240 total employees produce

⁷JX 6 is a prehearing report that contains stipulations of fact to be discussed later.

⁸Unless a party requests a hearing within thirty days of service of the Administrator’s proposed Decision and Order, the Decision and Order becomes final. 30 C.F.R. §44.13 (b).

⁹Absent any objection other than the lack of notice that Mr. Smith would be presented as an expert, I determined Mr. Smith was an expert on the Mettiki Mine operations.

approximately 4.5 million tons of “raw” coal a year, which yields 2.5 million tons of “clean” coal. The mined coal is removed by a continuous belt system through a separate entry-way. The principal consumer of the coal is a Virginia Power electrical generation plant.

PX 1 is a map of the active portion of the Mettiki Mine. Because Mettiki Mine is a drift mine, the miners enter the mine where the coal seam is exposed to the surface of a mountain. Upon entering the mine, miners travel about a mile and a quarter down a twenty degree slope until reaching the first main corridor. Miners then proceed a few more miles to the working, or active area, of the mine. The red circle and lines on PX 1 show the entire route to current area being developed for mining, which is shown in greater detail in PX 2. The total distance from the mine entrance to this work area, circled in green, is about five miles. The miners travel on diesel powered Hummers (PX 3) until the last open cross cut.

The number “28” on PX 1 represents the long wall section that is now being mined. PX 2 shows in detail the development of the next section for mining. In addition to coal being left in place as roof support (marked “C” on PX2), Mettiki uses roof bolts and cribs, which are made by building up pieces of wood or concrete from the floor to the roof, to ensure the integrity of the mine ceiling.

As an area is developed for longwall mining, the coal is extracted by a continuous mining machine which uses 995 volts. The roof bolting machine is also driven by 575 volts of electricity. Power to these machines is supplied by “trailing” cables which run from the mining equipment back several hundred feet to a power transformer or load center. The cable for the continuous miner has a diameter of two and a half inches; the roof bolter electric cable is an inch and a half thick. Power to the power transformer is supplied by a large, “four ought” 7,200 volt cable that runs the entire length of the mine from an exterior bore hole to the entry-way of the new section. Over the course of nine years, the length of the high voltage line has reached more than five miles. The cable weighs about four pounds a foot and is hung from the roof bolts, just inches from the mine ceiling. Over a mile of this cable extends from the main corridor leading to the PX 2 work area and the power transformer in PX 2, marked “P.C.” and circled in red on PX 2.

PX 3 shows the placement of the power cable on Mettiki Mine roof. The company chose this location because it’s the “safest place for it.” Hanging the thick power cable from the roof helps keep the corridors clear for the movement of large mining equipment. In addition, having the cable in an elevated location facilitates visual inspection of the line and its repair. The Mettiki Mine is also very wet.¹⁰ The floor, consisting of “fire clay,” is muddy, uneven, and “slick.” Due to the soft nature of the Mettiki Mine coal, the company uses five foot boards along the sides, or ribs, of the corridor to support the mine walls (see PX 3). The company does not place the cable on the wall, or rib, supports because the walls sometime “roll” or “slough off.” If the cable were attached to a rib that rolled out, then the cable would be torn down. Placing the power cable on the rib also exposes the power line to accidental damage by passing vehicles and equipment. Finally, because the mine is so wet, if the power line were attached to the ribs, the miners would be exposed to a 7,200 volt cable

¹⁰According to Mr. Smith, Mettiki pumps 7,000,000 gallons of water a day out of its mine (TR, page 82).

while standing in puddles on the floor. Hanging the cable from the ceiling eliminates this exposure.

In its mining operations, Mettiki uses up to seven EIMCO diesel scoops (PX 4). The primary function of the machine is to haul supplies and “scoop” up debris to keep the corridors clear. The driver/operator sits in a cab located on the left side of the scoop between the front and rear wheels (PX 6, PX 7, and PX 8). The scoop bucket, (PX 5) is eight feet wide and four feet deep to the back plate which is about sixty-two inches high.¹¹ In the operator cab, just to the right of the steering wheel are three levers that control the movement of the scoop bucket (PX 7). As a safety precaution to preclude inadvertent activation of the levers, Mettiki has now modified the three lever housing by drilling a hole through the bottom of all three levers and placing a long pin through the bottom hole of all three levers and the switch housing (PX 7). The pin itself is attached to the cab interior by a small chain. With the locking pin in place, the levers remain in neutral and can not be moved.

On a daily basis in the Mettiki Mine, miners must accomplish tasks in elevated areas. Setting additional roof support and belt chains requires miners to have access to the roof of the mine. In addition, miners have to work near the ceiling as they advance the mining equipment power cables. About twice a week, as a section is mined and the power line from the power center to the mining equipment reaches its limit, the cable is de-energized and the transformer or power center is moved about one hundred and fifty feet closer to the mine face. After the power center is advanced, additional high voltage power supply cable is added by connecting new sections of power cable to the existing line and securing the power line to the mine roof. PX 9 shows two miners in a scoop bucket advancing the high voltage electrical cable.¹² The bucket is raised about twenty inches and about five hundred feet of new cable section that is being added is coiled in a figure eight pattern inside the bucket at the miners’ feet. The miners attach the cable to the mine roof in four foot intervals.

Prior to the 1997 citation, Mettiki workers attached power cable to the mine ceiling while standing in a raised scoop bucket that was not supported by a crib. Instead, while the cable was being hung, the scoop operator held the service brake. After the power cable was attached to the miner roof, the scoop, with the men and cable still in the raised bucket, trammed forward four feet to the next attachment point. The bucket was kept in the raised position to place less stress on the cable just attached to the mine ceiling and to preclude a domino effect in the event the hung cable broke loose. While the miners in the scoop were attaching the cable, a locking pin was inserted in the three lever control to make sure the scoop bucket didn’t move. Across the open bucket face, a raised chain was held in place by two side brackets. However, in order to comply with the applied safety standard, Mettiki believes it must now place a wood or concrete crib under the scoop bucket (see PX 9 and PX 10). If cribs are used to support the bucket, then the two miners in the scoop platform have to get out of the bucket, un-stack the crib blocks and then rebuild the crib under the bucket after

¹¹Based on picture of miners standing in the bucket, I believe the height of the back side is not more than forty-eight inches (See PX 9 and PX 10).

¹²This activity is also demonstrated in the videotape, PX 15.

the scoop advances four feet. At present, rather than using a cribbed scoop bucket, miners hang the cable while standing on ladders.

Another type of raised work involves providing additional roof support by constructing cribs. When roof support cribs need to be built, the miners use either five by seven by thirty inch blocks of wood weighing over thirty pounds or doughnut-shaped concrete rings, each weighing fifty-eight pounds. They build a column of the concrete crib “donuts” from the mine floor to the ceiling. To complete the top of the column, the miners stand in the bucket that is raised about forty inches from the floor. As the scoop moves from one crib area to another, the scoop operator lowers the bucket a bit with the miners still in it. Prior to the citation, the bucket and the scoop wheels were not blocked, the scoop operator just held the service brake. If under the MSHA standard they are required to perform this work from a bucket that is cribbed, the miners will be unable to rapidly clear the area in the event the mine roof comes tumbling down.

The last type of elevated work involves hanging belt supports, or chains, from the roof. Due to the uneven nature of the mine floor, Mettiki suspends its conveyor belt system from the mine ceiling. To place the belt support, miners must put two chains through bolts placed in the ceiling. The distance between the belt supports is ten feet.

Prior to MSHA safety citation, Mettiki had used an unmodified scoop for most of its elevated work for twenty-one years. During that time frame, there have been no accidents in the Mettiki Mine related to the use of scoops as raised platforms. MSHA issued the safety citation because Mettiki miners were working from a raised scoop without blocking and the scoop transported the workers from one work station to another.¹³ When confronted with the prospect of having to place cribs under the bucket, the workers decided that was not a good approach. Attaching power cable to a roof hook takes about half a minute. In contrast, crawling in and out of the scoop bucket and moving and rebuilding the cribs was time consuming. The practice was also dangerous due to the slip and fall hazards and possible material handling injuries.

The company also considered using the chassis of other equipment as an elevated platform. However, in light of several accidents in the Mettiki Mine involving people crawling up and down on equipment, Mettiki decided not to use equipment exterior surfaces as elevated work platforms.

Following the safety citation, the miners started using ladders for elevated work, including hanging power cable (PX 11) and building roof support cribs (PX 12, PX 13, PX 14, and PX 15). The use of the ladders raises two primary safety concerns. In light of the wet conditions in the mine and the uneven floor, miners are exposed to slip and fall hazards when using the ladders. In addition, because two of the elevated tasks (power cables and roof cribs) involve lifting heavy material, there is potential for material handling accidents.

¹³Concerning transporting miners, the term “man-trip” refers to the transportation of a worker from the surface to the working face. Mettiki does not use scoops for man-trips. Tramming is the movement of miners a short distance.

In Mr. Smith's opinion, the safest way to perform work involving attachments to the mine's roof is having miners stand in an elevated scoop bucket. In addition, due to potential slip and fall injuries, it is safer to let the miners ride in the scoop as it moves either four or ten feet, rather than requiring the workers to climb in and out of the bucket each time the scoop is moved.

Mettiki Mine initiated the modification petition on the advice of a MSHA representative. The company believes modification of the application of the safety standard is appropriate if it uses a scoop that has load locking valves, a bucket lever safety pin, and a waist-high (see PX 10) chain across the open face of the bucket that is attached to side-rail bars. The use of a scoop with these modifications will guarantee the miners the same or a "greater" level of safety than compliance with the safety standard. The scoop also gives miners protection against collapsing ribs, improves material handling, and reduces slip and fall hazards.

The present application of the safety standard also diminishes safety in the Mettiki Mine. If the scoop bucket is blocked with a crib and the scoop wheels are "chocked" by crib donuts (see PX 10), then the scoop can not escape quickly in the event of a roof collapse.

Mettiki did not challenge the citation for violation of 30 C.F.R. §75-1726 (a). Instead, the mining company paid the \$100 fine. Likewise, Mettiki did not challenge the imminent danger order,¹⁴ which it received with the citation.

Since the company started using ladders to hang cable, there has not been a reportable accident. And, while the scoop operator is protected by a canopy, miners in the bucket do not have overhead protection.

Mr. Smith did not investigate whether other types of mobile, elevated, work platforms would be acceptable and comply with the safety standard. The width of the corridors and entry ways ranges from sixteen to seventeen feet. The scoop bucket is eight feet wide, and the scoop measures six feet across.

Mr. Smith interprets the blocking requirement in the standard to apply to horizontal movement only. And since the scoop already has a lever pin which prevents activation of the bucket controls, he believes Mettiki complies with the safety standard.

Sworn Testimony of Mr. Horace J. Theriot (TR, pages 180 to 266)¹⁵

Mr. Theriot, a twenty year employee with Mettiki, has been the manager of safety, health, and human resources since 1992. Before the safety citation, Mettiki used a scoop, modified with a jacket

¹⁴This order indicates a MSHA inspector believes there is an imminent danger of injury.

¹⁵Absent any objection, I accepted Mr. Theriot as an expert in mine safety at the Mettiki Mine.

that covered the bucket lever controls, to do elevated platform work. For at least seventeen years, Mettiki used the scoop for elevated work without an accident.

On March 3, 1997, Mr. Jamie Lau, a MSHA inspector, entered the mine during an afternoon shift and observed miners in a raised scoop bucket hanging belt chains and then moving from one work station to another work station. The scoop wheels were not blocked. After some discussion, the mine safety inspector issued a citation and an imminent danger order. On the citation form (PX 20) citing a violation of 30 C.F.R. §75-1726 (a), Mr. Lau indicated his belief that the risk of bodily injury in using the raised scoop bucket as a work platform and for transportation of two miners was “highly likely.” During subsequent negotiations, the gravity of the offense was reduced from “highly likely” to “unlikely.”

Mr. Theriot was surprised by the citation because he did not consider their use of the scoop bucket a safety violation. However, Mettiki decided not to contest the citation because Mr. Mack Porter from the MSHA office came out to the mine and stated his intention to work out a plan that would permit use of the scoop bucket. Mr. Theriot believed the company paid a monetary penalty of \$50 for the infraction. Later, after several meetings, Mr. Porter informed Mettiki that its plan for a modified scoop would not be approved. Mr. Porter stated the only way to be able to use the scoop was through a petition for modification. Eventually, Mettiki filed the petition. Mr. Theriot was “big time” surprised by Mr. Porter’s investigative report of the modification request and his ultimate recommendation.

PX 15 is a videotape that shows, in part, two miners building a roof support crib with concrete doughnuts. The worker at the top of the ladder accepts the donuts from the worker on the floor, who is attempting to steady the ladder while at the same time remain clear if the top miner should drop the doughnut. Next, the film demonstrates a blocked scoop being used as an elevated work platform to build a roof support crib. Finally, the videotape contrasts hanging power cable from a ladder and putting up the power line using a blocked scoop. In particular, it demonstrates how the miners have to un-stack the wood crib under the scoop bucket at one location and then rebuild it four feet away. Mr. Theriot did not consider the scoop bucket blocked with a concrete crib to be dangerous.

Mr. Theriot believes compliance with the 30 C.F.R. §75.1726 (a) diminishes safety at the Mettiki Mine because the miners have to use ladders which are less stable than the scoop bucket. In fact, a report by the U.S. Department of Labor, Bureau of Labor Statistics, shows that one fifth of construction fall fatalities involved falls from ladders (PX 16).¹⁶ In light of that report and considering the uneven bottom of the Mettiki Mine in combination with miners lifting heavy loads while on the

¹⁶The study covers all construction, including mining. While the study does not show any ladder fatalities related to mining, Mettiki presents the data (see PX 16, page 17) on the premise that their use of ladders in the Mettiki Mine is similar to construction and construction activity did lead to fatal ladder accidents. I also observe that page 15 of the safety report shows nearly 10% of the occupational fatalities in mining involved front-end loaders.

ladders, the use of ladders in the mine presents a fall hazard. To date, the Mettiki Mine has not experienced any lost time injuries from the use of ladders.

Mr. Theriot believes the safety goal of 30 C.F.R. §75.1726 (a) is the prevention of injuries to workers while on an elevated platform due to a sudden drop of the platform. The Mettiki modification petition addresses that concern through the installation of a bucket lever lock and load locking devices on the hydraulic lifts of the scoop bucket. The scoop bucket also provides significant protection against rib rolls. To address the transportation concerns, Mr. Theriot proposes lowering the bucket to a tramming height of eighteen inches off the mine floor and then transporting the miners a few feet to the next work area. He was not concerned about the risks to the power cable of lowering the scoop bucket to a tramming height. In combination, the proposed measures increase the overall safety of tasks associated with elevated platforms.

After MSHA provided the names of some platform manufacturers, Mr. Theriot contacted the company that built the duck scissor lift. The company representative stated they did not have any lifts operating in coal mines in the United States. However, he did believe the company could build a flame-proof machine. Upon inspection of the lift specifications, Mr. Theriot determined the machine was too long to move well in the Mettiki Mine and the lift did not descend low enough. Because Mettiki believed their modified scoop complied with the standard, the company did not look for any other specifically designed elevated platforms.

Mr. Theriot confirmed that in a similar regulation for non-metal mining, the regulations states the raised equipment is considered blocked if “provided with a functional, load locking device or devices which prevent free and uncontrolled descent.”¹⁷

The EIMCO company does offer a platform attachment with design platform load of just over one thousand pounds. However, the five hundred foot length of power cable weighs two thousand pounds. As a result, the EIMCO scoop with the platform attachment would not meet the requirements for hanging cable. At the same time, the platform scoop could be used to hang belt chains and to build roof support cribs.

Sworn Testimony of Mr. David R. Blythe (TR, pages 266 to 308)¹⁸

Mr. Blythe has been a Mettiki Mine employee for twenty-one years and is presently working as a general maintenance foreman. He is familiar with the 913 scoop; Mettiki uses seven of the scoops in its operation. He does not believe Mettiki’s use of the scoop violated the safety standard

¹⁷While questioning Mr. Theriot, Mr. Biddle pointed out that the regulation, 30 C.F.R. §56.14211 indicates the equipment must be blocked to prevent rolling or falling.

¹⁸Absent any objection, I accepted Mr. Blythe as an expert witness on the characteristics of the Mettiki load locking valves and the EIMCO 913 scoop parking brake. Over Mr. Cohen’s objection, I found Mr. Blythe an expert on the Mettiki lever control lock.

because the bucket controls were protected. As a result of the safety citation, the company used other methods for elevated work but did not consider any other elevated platform equipment.

The load locking valves are used on other mining equipment in the Mettiki Mine and throughout the mining industry. Essentially, a load locking valve prevents inadvertent movement of an actuator arm. Once set, the load locking valve will not allow movement until positive hydraulic pressure is applied to the device. As a result, the event of an accidental loss of hydraulic fluid, the load locking valve will prevent any movement. PX 17 shows two stages of a load locking valve. The modified scoop has three load locking valves installed: a valve on each of the two bucket lift arms and a valve on the bucket tilt cylinder. These valves will permit movement only if the bucket control lever is activated.

To further ensure the safety associated with the load locking valves, Mettiki submitted an arm lift load locking valve and a tilt load locking valve for independent testing to determine the strength of the valves. After hydraulic pressure was removed, the valves remained seated even when the load increased to 40,000 pounds of pressure (PX 18 and PX 19). The combined weight of the scoop bucket, two men, and power cable is just over 8,000 pounds. Based on his knowledge of, and experience with, the load locking valves on the Mettiki EIMCO 913 scoop, Mr. Blythe opined the locks will prevent an unexpected drop or tilt of the elevated scoop bucket. So far, three of the Mettiki scoops have been modified with load locking valves. Mr. Blythe acknowledged that the load locking valves do not preclude physical failure of the bucket arms.

Mr. Blythe is also familiar with the EIMCO 913 scoop braking systems. The parking brake, which is engaged by a lever, will hold the scoop in place, even on a slope. Engaging the parking brake is better than blocking the scoop wheels because activation of the brake locks the scoop's drive unit, which consequently locks all four wheels. Mr. Blythe has never had to repair a parking brake because it had failed. In addition, he has never heard of an incident when a scoop with locked wheels has slipped on the sloping floor of the Mettiki Mine.

The control lever locking pin, as shown in PX 7, slides through the bottom of the scoop bucket's control levers and prevents the activation of the bucket's hydraulic system. When properly installed, the control lever locking pin prevents accidental activation of the control levers and movement of the bucket ram (a push plate at the back of the scoop bucket used to eject loads in the bucket). There is no provision to preclude removal of the pin from the control levers. The pin is fairly tight in the slot and the scoop operators will receive training on the proper use of the pin.

In Mr. Blythe's opinion, the combination of the load locking valves, the parking brake, and the control lever locking pin, if properly utilized, will prevent the unexpected movement of the scoop bucket while it's elevated and occupied by two miners.

It is possible to put just 200 feet of power cable in the bucket instead of 500 feet. However, the company purchases the cable in 500 foot lengths.

Sworn Testimony of Mr. Carl Wolfe (TR, pages 310 to 350)

Mr. Wolfe, another twenty-one year Mettiki employee, has been a scoop operator for ten years. As an operator, he uses the scoop to clean up coal spillage, haul supplies, and to provide bolts to roof bolters. In the past, the scoop has come in handy as an elevated work platform for hanging power cable, installing belt chains, and building roof support cribs. These elevated tasks occur about once a week. Prior to the safety citation, the miners loaded the power cable into the scoop bucket, proceeded to the work area, and entered the scoop. Mr. Wolfe, after receiving a hand signal from the miners in the bucket, raised the scoop bucket so they could reach the roof. As he slowly raised the bucket, the miners would shout and use a hand signal when they reached the appropriate height. After the cable was hung, the miners in the bucket gave Mr. Wolfe another hand signal and he lowered the bucket and moved to the next work station a few feet away. The typical tramming height was about two to two and a half feet above the mine floor. Even with his ear plugs, Mr. Wolfe could hear the miners' voices.

As he sits in the scoop operator area, Mr. Wolfe can see the miners in the bucket because they are taller than the bucket walls and illuminated by the scoop headlights. Mr. Wolfe never left the operator cab while miners were in the bucket. Mr. Wolfe also never raised the scoop so high that he couldn't see the miners in the bucket.

Because the sides of the bucket protect the miners from sloughing walls, the miners are safer moving in the bucket than getting out of the bucket and walking to the next work area. Prior to the March 1997 citation, Mr. Wolfe is not aware of any scoop accidents in the Mettiki Mine when the scoop was used as a raised platform.

When using the scoop to build roof cribs, the miners would estimate the number of doughnuts they would need. Then, the scoop would move the material to the appropriate area and the miners would start building the crib by stacking the concrete doughnuts. As the crib grew taller, the miners stood in the raised scoop bucket to finish the top of the concrete column (PX 10).

Since the March 1997 safety citation, miners pull the power cable out of the scoop bucket and hang it from the mine ceiling using ladders (PX 11). Because of the floor's slope, at least one miner must hold the ladder. At any one time, the miner on the ladder is holding cable weighing up to fifty pounds. PX 12 and PX 13 show miners using a ladder to build a roof support crib. Mr. Wolfe does not consider the use of a ladder safe. Due to the slope of the floor and the weight of the material, the ladder becomes unstable. Sometimes, in an attempt to level the ladder, the miners use boards as wedges (PX 12 and PX 13). Mr. Wolfe also believes use of a ladder increases the risk of material handling accidents. Finally, because the mine is wet, the ladders become slippery. In his conversation with the other miners about the modification petition, they expressed the opinion that using the scoop bucket was the "safest" method for performing the various elevated tasks in the mine.

As a scoop operator, Mr. Wolfe would have no difficulty using the control lever locking pin. He would "just automatically go with it and do it." In addition, Mr. Wolfe always tests the parking

brake and sets the parking brake when the scoop is stopped. He believes the modified scoop is the best way to perform the elevated work.

Since the citation, Mr. Wolfe is not aware of any serious accidents associated with the use of ladders. Likewise, Mettiki has never mentioned to Mr. Wolfe the possibility of using other elevated work platform equipment. Essentially, after the citation, the miners were presented with the choice of either using the ladders or a scoop bucket blocked with a crib, which is impractical. Most of the miners did not want to move the crib for the bucket from one work area to the next, so they used ladders.

Sworn Testimony of Mr. Gary E. Lucas (TR, pages 353 to 360)

Mr. Lucas is a general laborer in the Mettiki Mine and has worked more than twenty years with the company. His present responsibility is building roof support cribs. Since March 1997, he has used ladders to accomplish his elevated work. He doesn't believe the ladders are safe. Due to the uneven floor, a ladder is not stable; and, because of mud, the ladder rungs become slippery. Once, when a ladder leg slipped, Mr. Lucas fell off the ladder. Mr. Lucas has also seen a ladder tip over onto another miner. Neither Mr. Lucas nor the other miner suffered an injury.

Having some experience with scoops, Mr. Lucas stated that a scoop bucket does dip up and down as the scoop travels along the uneven mine floor. However, when tramming at a slow rate, the scoop doesn't move up and down.

Sworn Testimony of Mr. William S. Burrow (TR, pages 365 to 383)

Mr. Burrow is a ten year employee of Mettiki and works as a general laborer. In his job, Mr. Burrow moves belts and power supply lines. He currently uses a step ladder for his work near the mine roof. In Mr. Burrow's experience, the ladders pose slip and fall hazards. It is difficult to level the ladder and the steps are muddy. In addition, attempting to hang the heavy power lines with the ladders presents material handling hazards. Mr. Burrow has observed several miners fall off ladders. He also saw another miner on a ladder drop a crib block, nearly hitting the miner holding the ladder. Mr. Burrow acknowledged that a miner in a bucket could also drop a concrete doughnut. But, he believed it was better to drop a doughnut on a foot than another miner's head.

Mr. Burrow would prefer to work from a modified scoop rather than a ladder because it's safer. The miners on his shift agree. Because the bucket back is about five feet high, the miners would be able to duck down to avoid the roof while the back of the bucket hits the roof if the bucket is raised too high. The miners use hand signals to direct the scoop operators. Mr. Burrow considered the use of hand signals to be effective communication.

Mr. Burrow is not aware of the availability of other elevated platform equipment.

Sworn Testimony of Mr. John Bateman (TR, pages 384 to 393).

Having spent twenty years with Mettiki, Mr. Bateman is presently a general laborer and motor man. For the last twelve years, Mr. Bateman has also served as the miners' representative. As a miners' representative, Mr. Bateman escorts federal mine safety inspectors during their inspection of the mine and listens to the concerns of the miners. Prior to the citation, Mr. Bateman did not receive any safety complaints from the miners about the use of the scoop as an elevated platform. He has received safety complaints about ladders.

Mr. Bateman supports the modification petition because the modified scoop is safer for elevated work than ladders.

Documentary Evidence (PX 1 to PX 20)

[The contents of these exhibits have been covered by reference in the summarization of the witnesses' testimony]

Petitioner's Interrogatories and MSHA's Answers (PX 21)

In response to Interrogatory Number 14 requesting information on an accident alleged to have occurred in the Mettiki Mine on August 11, 1998, MSHA replied the "Administrator has no information on this accident."¹⁹

Evidence for MSHA

Sworn Testimony of Mr. Jim Angel (TR, pages 396 to 461)

Mr. Angel, a sixteen year employee of MSHA, with a degree in mechanical engineering, works in the Mechanical Safety Division (see MX 6). As a member of the division, Mr. Angel evaluates the mechanical aspects of equipment prior to approval of its use in coal mining. He has particular expertise with diesel equipment.

The American National Standards Institute ("ANSI") establishes recognized safety standards for equipment. MX 13 is the ANSI standard for vehicle mounted elevating and rotating area devices. This is the standard most applicable to the Mettiki modification petition. The standard sets out specifications for the design of the personnel basket and the equipment's hydraulic system. It also requires electrical insulation and control levers inside the lifting basket. The standard permits movement of the equipment while individuals are on the elevated platform.

Although Mr. Angel believes the ANSI standard are generally applicable to coal mining, he acknowledges a MSHA representative did not participate in development of the ANSI standards and that the coal mining regulations do not specify that ANSI standards must be applied. As a result, he

¹⁹See TR, pages 462 to 464.

does not believe a coal mine operator should be cited for using equipment that fails to meet ANSI standards. The MSHA standards represent minimal safety requirements, while the ANSI specifications provide better safety standards.

When Mr. Angel examined the approval tags on the EIMCO 913 scoops in the Mettiki Mine, he discovered the vehicles were not approved for man-trips, which he defines as the transportation of miners, any distance, even four feet. Mr. Angel does not react favorably to a proposal to use a scoop as an elevated platform because “it’s a very dangerous thing to do.”

Diesel equipment, such as the EIMCO scoop, provides safety protection for the operator. But, there are no other safe locations on the vehicle. Because a scoop is a fast moving machine operating in close quarters, there is “a very high risk of being injured by being crushed against” the mine walls, roof, or floor. To address such hazards, a scoop should be modified to meet the ANSI standards for elevated platforms before it’s permitted to be used as an elevated work platform. In particular, the individuals on the platform must have the ability to raise and lower the platform since they will recognize hazards quicker than the scoop operator. Other necessary safety features include specifically designed railing, a stable footing area, and protection from overhead hazards.

Comparing the dangers associated with hanging cable from a scoop with the hazards of using a ladder, use of the scoop bucket is riskier because the severity of injury would be greater in a scoop bucket accident. Mr. Angel has reviewed scoop and front-end loader²⁰ accidents. Many times, workers slip and fall out of the buckets. Mr. Angel believes at least one scoop accident has occurred in the Mettiki Mine. A miner fell out of the bucket and dislocated his shoulder. However, Mr. Angel is not aware of any fatal accidents associated with tramming miners in a scoop bucket a distance of ten feet or less.

Because a scoop has a rigid frame, the bucket is unstable as the scoop moves along an uneven surface. As the scoop speed increases, the ride becomes “more jarring.” Consequently, if the Mettiki modification is approved, Mr. Angel believes there is a danger of miners being thrown out of the scoop bucket as they are being transported. On the other hand, there wouldn’t be much jarring if the scoop moved only four feet at slow speed. In his opinion, the modification petition should not be approved because use of the modified scoop is unsafe; the modified scoop doesn’t meet the ANSI standards; and, the modification fails to address numerous hazards associated with using the scoop bucket as an elevated work platform.

Mr. Angel has observed the operation of the Mettiki scoop and viewed the videotape (PX 15). Due to environmental noise, he believes miners in the scoop bucket would have difficulty communicating with the scoop operator.

MX 12 is a sales brochure for custom built scissor lift trucks. Mr. Angel contacted the

²⁰According to Mr. Angel, a scoop is really a low and wide front-end loader designed for use in underground mining.

manufacturer and provided specifications for the Mettiki Mine (with the exception of the platform load lifting requirement). The company indicated it could build a lift truck for the Mettiki Mine that would comply with the ANSI safety standards for elevated platforms. Likewise, he contacted EIMCO about a platform modification to its scoop. The company does provide an interchangeable personnel elevating platform for the 913 scoop (see MX 11). The maximum platform capacity is about 1000 pounds.

Mr. Angel was not aware of a specific regulatory prohibition against transporting coal miners in a scoop bucket. He believed the MSHA policy is that the scoop has to be traveling in reverse. Since the scoop is traveling in a reverse direction, it would not run over anyone who accidentally fell out of the scoop. Tramming is usually accomplished with the scoop six inches off the mine floor. Subsequently, Mr. Angel noted a MSHA regulation, which did not specifically apply to underground coal mining, precluded the transportation of workers in a bucket.

Use of the scoop parking brake alone doesn't satisfy the ANSI standard for blocking. Mr. Angel would require the scoop wheels to be blocked with a chock to prevent accidental movement of the scoop due to slack in the drive train, or a shift in the scoop load, or un-even terrain. He'd also require the machine to be shut down to preclude inadvertent steering. Concerning blocking the scoop bucket, Mr. Angel opined that use of load locking valves would be satisfactory. He would not require a crib under the bucket.

Sworn Testimony of Mr. Barry L. Ryan (TR, pages 465 to 501)

Mr. Ryan is the supervisory mine engineer for the MSHA office in Oakland, Maryland. In that capacity, he supervises four or five mine inspectors who monitor mines for compliance with federal mine safety standards.

Mr. Ryan has been in the Mettiki Mine numerous times over the course of several years and never observed miners using the scoop to hang cable, build cribs, or to install belt chains. In comparison with other coal mines, the Mettiki Mine is not particularly unusual. Other mines with wet conditions hang their power lines along the rib boards on the mine walls. In reviewing the picture of miners building a roof support crib in the Mettiki Mine (PX 10), Mr. Ryan observed several hazards, including the potential for slip and fall accidents and the miners striking their heads on the mine roof. He also noted that sometimes roof support cribs are set farther than ten feet apart; at times, they may be located sixteen feet apart.

Because parking brakes have been known to slip, the MSHA standard requires blocking against all movement. He also believes use of the ladder would be safer than using the scoop bucket to hang power cable.

MSHA mine inspectors are frequently in the Mettiki Mine, covering all shifts. Due to his inspector's interpretation of the standard, Mettiki was informed they had to build a crib under the scoop bucket to "block" it.

Mr. Ryan believes the purpose of 30 C.F.R. §75.1726 (a) is to prevent all movement of an elevated platform. In that regard, Mr. Ryan thinks load locking valves on the hydraulic arms provide insufficient blocking because the valves may be damaged. Consequently, he would require physical blocking of the bucket with a crib. His main concern about, and the primary hazard with, the Mettiki modification involves the tramming or transportation of miners in the scoop bucket.

Sworn Testimony of Mr. Mac Porter (TR, pages 502 to 532)

Mr. Mac Porter is the MSHA coal mine inspector who investigated the modification petition and issued the investigative report (JX 2 and MX 2). As part of his investigation, he talked to Mettiki representatives and the miners. Mr. Porter also contacted safety specialists.

After the safety citation, but prior to his investigation, Mr. Porter visited the Mettiki Mine and discussed the situation with company officials. Because the company had a reputation for innovation, he thought they might be able to resolve the issue concerning the scoop. The bucket he originally examined was different than the scoop bucket actually proposed by Mettiki as an elevated platform. After his talks with the company, he believed the proposal looked good; however, he was not in a position to determine whether MSHA would approve the petition. Even though Mr. Porter thought the load locking valves were insufficient, he took a positive approach with the mining company and didn't express that opinion. Based on his positive approach, the company officials probably thought everything had been resolved after his visit. Mr. Porter didn't make a recommendation for complete denial of the petition. Mr. Porter believed some issues still needed to be addressed. Mr. Porter just presented the facts in his report and the Administrator made the decision on whether to deny the petition.

Mr. Porter is against tramming the miners any distance and believes load locking valves provide insufficient blocking. The regulation says "blocked," so physical blocks have to be used. He also thinks the wheels need to be blocked even if the parking brake is set. Because the valves and brakes could fail, he does not believe the modification offers the same level of protection as the MSHA safety standard. Mr. Porter has observed elevated platforms in use in metal/non-metal mines. Those platforms did not have a crib underneath them.

Based on his personal experience, Mr. Porter considers the ladder a safer method in the Mettiki Mine for hanging power cables. He has been going to the Mettiki Mine since 1995. During that period, he never observed the company using a scoop as an elevated work platform.

According to Mr. Porter, MSHA permits tramming in coal mines if the scoop is lowered to its lowest limit, the ejector blade is locked out, men and material aren't in the same bucket, and the scoop travels in a backward direction.

Sworn Testimony of Mr. Don F. Braenovich (TR, pages 534 to 595)

Mr. Braenovich, with a bachelor's degree in mine engineering, has been employed by MSHA

for over six years and presently works as a health and safety specialist in the Coal Mine Health and Safety Division. His responsibilities include evaluating petitions for modification of regulatory safety standards. He drafted the Administrator's proposed Decision and Order on the Mettiki Petition (MX 1). As part of his research, he contacted technical specialists and reviewed safety reports. He did not find any accident at the Mettiki Mine relevant to the modification petition. Based on the facts in the petition, the contents of the investigative report, and the accident data, Mr. Braenovich concluded the proposal was "not a safe procedure" and that the petition should be denied. Although Mr. Braenovich drafted the Decision and Order based on his analysis, the Administrator was free to reach his own conclusion. Mr. Braenovich admitted that when he drafted the decision, he was not aware of the metal/non-metal safety standard (which indicates the use of load locking valves will achieve the same degree of protection against uncontrolled movement of elevated equipment as physical or mechanical blocking; see MX 5).

Mr. Braenovich found several areas of concern in the petition: (1) the absence of a non-slippery surface; (2) the insufficiency of a chain as a railing; (3) the transportation of miners in the bucket at an unspecified speed; (4) possible communication problems related to the height of the bucket; and (5) the use of a control lever locking pin which precludes rapid activation of the bucket in the event of an emergency, such as a roof fall.

MX 7 is a report of a fatal accident that occurred in a metal/non-metal mine when a roof fall killed a miner who was working in a front-end loader bucket. The cause of the accident was failure to support the roof. One of the other noted violations was the movement of the front-end loader with the miner in the raised bucket. Another accident report, MX 8, chronicles the death of a miner who had been working in a front-end loader bucket. While he was standing in the raised front-end loader bucket, the equipment accidentally moved, throwing him forward and crushing him between the edge of the bucket and another piece of equipment. (The report cites the cause of the accident as working from the bucket of a front-end loader that wasn't blocked and didn't have load locking valves).

In a newsletter, MX 9, (dated January 24, 1997), MSHA announced a hazard alert concerning deaths attributable to miners working in front-end loader buckets. MSHA, noting four fatalities in five years, stressed that the metal/non-metal safety standard 30 C.F.R. §56/5714211 prohibits work from a raised, unblocked components of mobile equipment (see also MX 5).

Mr. Braenovich considers the transportation of miners in scoop buckets to be hazardous. In fact, his main problem with the petition is Mettiki's intent to use the modified scoop as "mobile" elevated equipment. The basis for his concern is an accident study he prepared relating to scoop bucket accidents since 1990 (MX 10 and MX 15). Mr. Braenovich observed that most of the accidents weren't related to tramming, but some accidents did involve the movement of miners in scoop buckets. On one man-trip, the scoop ran over a rock, causing the bucket to rise, which in turn caused a miner to lose his balance in the bucket and hurt his ankle. In another accident, a miner riding in the scoop bucket was struck by a bolt that was run over by the scoop and thrown towards the bucket. In a third accident, a miner was riding in the bucket with his foot over the bucket edge. He fractured his ankle when the scoop hit a roll, the bucket rose up, and the bucket edge hit the mine

roof. Mr. Braenovich could cite several more such accidents. Of the nearly 600 scoop bucket accidents, only one involved hanging cable. In that case, a miner slipped in the bucket and hurt his shoulder.

Mr. Braenovich acknowledged MSHA does not have a regulation that prevents the transportation of coal miners in a scoop bucket. If certain procedures are followed, MSHA policy permits miners to ride in scoop buckets.

According to Mr. Braenovich, at least one mining company uses the EIMCO platform attachment on its scoops (see MX 11). However, he does not know how the company uses the platform. Mr. Braenovich also believes working from a ladder is safer than using a scoop bucket. The ladder is more stable and the surface of the bucket is slippery. He also opined that due to inherent safety features, a specifically designed mobile elevated work platform did not have to be blocked.

MX 3 is a MSHA document which reflects a concern about the absence of load locking valves on continuous miner booms. According to Mr. Braenovich that document is the only MSHA policy on load locking valves. The memorandum does not specifically address 30 C.F.R. §75.1726 (a). Likewise, the program policy manual, MX 4, which stresses the use of load locking valves in some mining equipment and requires crib blocking of unsecured elevated equipment, does not directly apply to 30 C.F.R. §75.1726 (a).

Documentary Evidence (MX 1 to MX 13, and MX 15)

[The contents of these exhibits have been covered by reference in the summarization of the witnesses' testimony]

DOI, Bureau of Mines, June 16, 1972, District Memorandum (MX 14)

This 1972 memorandum instructs mining inspectors to stop the practice of transporting miners in scoop buckets. Included as reasons for this prohibition is the danger that miners will fall out of the bucket as the scoop travels and the inadvertent activation of bucket controls or loss of bucket hydraulic power.

Findings of Fact and Conclusions of Law

Prior to the hearing, the parties entered into the following stipulations of fact:²¹ (1) the Mettiki Mine, operated by Mettiki Coal, LLC, is an underground coal mine located in Oakland, Maryland in the Upper Freeport coal seam; (2) the company employs approximately 240 people, including 140 miners and 28 management employees; (3) the bottom of the Mettiki Mine can be uneven, wet, and muddy; (4) Mettiki uses longwall mining, and continuous mining machines are used to develop gate

²¹JX 6 and TR, pages 126 and 127.

entries for installation of the longwalls; (4) as a gate entry is developed, the power center must advance along with the development; (5) the advancement of the power center requires the extension of high voltage cable; and, (6) on April 22, 1998, Mettiki filed a petition for modification of application of 30 C.F.R. §75.1726 (a) to the Mettiki Mine.

Under Section 101 (c) of the Mine Safety Act, 30 U.S.C. §811 (c), as implemented by 30 C.F.R. §44.4, the Secretary, U.S. Department of Labor, through her representative in the MSHA, “may modify the application of any mandatory safety standard to a coal or other mine,” under one of two conditions. First, modification may be appropriate if “application of such standard to such mine will result in diminution of safety to the miners in such mine.” Or, second, a modification may be granted if the proposed alternative method achieves “the result of such standard” and “will at all times guarantee no less than the same measure of protection afforded the miners of such mine by such standard.”

Mettiki seeks modification of the application of the safety standard contained in a subparagraph of 30 C.F.R. §75.1726, entitled “Performing work from a raised position; safeguards.” Specifically, 30 C.F.R. §75.1726 (a) states:

Men shall not work on or from a piece of mobile equipment in a raised position until it has been blocked in place securely. This does not preclude the use of equipment specifically designed as elevated mobile work platforms.

Mettiki is requesting the modification and has asserted that it can prove both grounds for modification. Consequently, Mettiki bears the burden of proof of establishing, by a preponderance of the evidence, that either of the two justifications set out in the statute permits modification. 30 C.F.R. §44.30 (b).

Issue # 1 - Diminution of Safety.

If application of a regulatory safety standard at a particular mine has the actual effect of diminishing safety in that mine, then relief from the standard may be warranted. In other words Mettiki’s request for modification of the application of 30 C.F.R. §75.1726 (a) may be granted if application of the standard would be essentially unsafe. For this determination, I simply compare the safety level at the Mettiki Mine in the absence of the standard with the degree of safety achieved if the rule is applied at the Mettiki Mine. *International Union, UMWA, v. Federal Mine Safety and Health Admin.*, 924 F. 2d 340, 343 (D.C. Cir. 1991).

To determine the safety level in the Mettiki Mine prior to the application of the standard, I must identify the hazards associated with the use of an unmodified EIMCO 913 scoop as a mobile elevated work platform. For as long as twenty years prior to the MSHA March 1997 safety citation,

Mettiki occasionally used an unmodified scoop bucket for elevated work. During that period, the miners stood in the raised bucket of a scoop to attach power lines or belt chains to the mine roof, or finish a roof support crib column. While the miners worked in the bucket, the scoop operator remained in the scoop cab with the parking brake set. When the task at one location was completed, the miners, with hand gestures or loud voices, signaled the scoop operator who released the parking brake and slowly moved the scoop forward, with the miners in the raised bucket, about four to ten feet, to the next work station. The only safeguard installed on the scoop was a cover over the scoop bucket control levers to safeguard against accidental activation while miners were in the bucket.

Based on the accident evidence involving front-end loaders in mining, I find three significant hazards associated with Mettiki's use of an unmodified scoop and its bucket as a mobile work platform. First, in the absence of railing, bars, or any barrier across the mouth of the bucket, and considering the wet and muddy conditions in the Mettiki Mine, the miners in a raised scoop bucket face significant slip and fall dangers. Second, there is no safeguard against the sudden drop of the bucket in the event of hydraulic power failure. And, third, moving the scoop forward with miners in the raised bucket presents a danger of a miner being struck by the scoop if he or she accidentally falls from the bucket.

Turning to the next step in the analysis, I believe that MSHA's application of 30 C.F.R. §75.1726 (a) to the Mettiki Mine enhances rather than diminishes safety because it rectifies, at a minimum, two of the three significant hazards associated with Mettiki's use of an unmodified scoop bucket for elevated work. By requiring physical or mechanical blocking of a raised platform, the standard reduces the risk of injury due to unexpected and sudden movement of the equipment while miners are in the bucket. And, the transportation prohibition eliminates the risk of a miner, who has fallen from the bucket, from being struck by a moving scoop. I also observe that implicit in the standard is encouragement to use specifically designed mobile elevated work platforms. If specifically designed equipment is utilized, then all three hazards have been reduced because this equipment has railings around the entire platform (for example, see MX 11).

In an effort to establish a diminution of safety due to application of the standard, Mettiki asserts the standard reduces safety in the Mettiki Mine because it forces the Mettiki miners to use ladders for elevated work. Mettiki believes this procedure is comparatively more dangerous. While I have certainly considered that presentation, I disagree that the standard requires Mettiki to use ladders and that in relative terms the use of ladders is more dangerous than Mettiki's prior use of unmodified scoop buckets.

The standard requires Mettiki to either block equipment it intends to use as elevated platforms or use specifically designed elevated platforms. As one possible way to comply with the blocking requirement, Mettiki placed a crib under the scoop bucket to prevent sudden movement of the bucket. MSHA was satisfied with that solution. However, Mettiki, for obvious reasons, found the repetitious cribbing of the scoop bucket to be productively impractical. Instead, the company and its miners chose ladders. But, contrary to Mettiki's assertions, the use of ladders was not the sole remaining

choice. I find sufficient evidence to conclude that either further modification of the Mettiki scoops and its procedures (to be discussed in detail in the next section) or specifically designed mobile elevated platform equipment were also available options. In particular, the EIMCO platform modification for its 913 scoops would certainly be sufficient for the belt chain and roof support crib tasks. And, with some modification of the length of power cable used at any one time, or a change in procedure, such as having the cable on a spindle trail the workers in the EIMCO platform or utilizing smaller lengths of cable,²² the platform attachment may be sufficient for hanging power cable.

In regards to the dangerous aspects of the ladder, there is increased risk of material handling injuries and a greater potential for falls due to the unsteady characteristics of the ladder on the Mettiki Mine floor. However, these risks are less, not more, dangerous than Mettiki's previous use of an unmodified scoop bucket. Notably, because the ladders are moved by hand from one work station to another, there is no danger of a miner being struck, after a fall, by a forward moving scoop, during movement to the next work area. In addition, absent with the use of ladders is the potential for severe crushing injuries due to sudden scoop bucket hydraulic failure. In light of the severity of injury associated with scoop bucket accidents, I consider elevated work in an unmodified scoop bucket more dangerous than working on a step ladder.

In summary, application of the standard, rather than diminishing safety, improves safety by eliminating at least two of the significant hazards associated with Mettiki's use of the unmodified scoop bucket as a mobile elevated work platform. At the same time, because the standard does not necessarily require the use of ladders and the ladders are not more dangerous, the standard did not reduce the safety level in the Mettiki Mine. Consequently, Mettiki has failed to establish diminution of safety as a basis for not applying 30 C.F.R. §75.1726 (a) in the Mettiki Mine.

Issue # 2 - Same Measure of Safety

A second possible ground for permitting modification of the standard's application is that the mining company's proposed alternative provides the same measure of safety contemplated by the standard. Analysis of whether Mettiki's use of a modified scoop as a mobile elevated work platform guarantees no less than the same measure of safety as the standard in 30 C.F.R. §75.1726 (a) is also a two step process. *UMWA, International Union, UMWA, v. MSHA*, 928 F. 2d 1200 (D.C. Cir. 1991). As a first step, based on the result clause of the statute, 30 U.S.C. §811 (c), I must determine whether Mettiki's use of a modified scoop will promote the same safety goals as the original standard with at least the same degree of success. The next step, in light of the "same measure of protection" phrase in the statute, involves a consideration of the global, or net, safety effect of using a modified scoop. Because mining safety standards are interrelated, a modification to one standard

²²Mettiki places five hundred foot lengths of power cable in the scoop bucket. However, since according to Mr. Smith the power center is only advanced about one hundred and fifty feet at a time, shorter lengths of cable may be a viable option.

can not just be evaluated individually. *See International Union, UMWA, v. MSHA*, 920 F. 2d 960, 963 (D.C. Cir. 1990). Instead, in this second stage, I must evaluate the effect on overall mine safety, recognizing both the advantages and disadvantages of the modified scoop, even including effects unrelated to the safety concern promoted by 30 C.F.R. §75.1726 (a). In other words, on balance, do the benefits of the “modification outweigh or neutralize any potential adverse effects.” *Id.* at 1202.

Safety Goals of 30 C.F.R. §75.1726 (a)

There are two primary safety goals in MSHA’s application of 30 C.F.R. §75.1726 (a) at the Mettiki Mine. The first safety goal, conveyed by the standard’s requirement for blocking, and further defined in a parallel statutory provision (MX 5), is prevention of the free and uncontrolled descent of the scoop bucket. The second safety purpose of the standard as applied by MSHA to the Mettiki Mine is the reduction or prevention of transportation injuries. This latter purpose is the most important to MSHA (see TR, pages 44 to 45).

In general, Mettiki’s scoop modifications only address the first safety purpose of the standard. Installation of the load locking valves on the bucket’s lifting arms and the tilt arm will prevent the sudden, free, and uncontrolled descent or tilting of the scoop bucket. Although some MSHA officials believe Mettiki’s load locking valve solution is insufficient and would require physical blocking of the bucket, I am persuaded by Mr. Angel, a MSHA safety engineer, that the load locking valves satisfy the first objective of the standard. In addition, a physical blocking requirement is inconsistent with application of the standard for specifically designed mobile elevated equipment and with MSHA’s view on the sufficiency of load locking valves in other mining equipment. The standard indicates that blocking is not necessary on specifically designed mobile elevated work platforms. In other words, the use of load locking valves in specifically designed elevated equipment is sufficient and MSHA does not also require physical blocking of the elevated platforms. And, when addressing the use of load locking valves in raised portions of metal/non-metal mobile equipment, MSHA did not also require physical blocking (MX 5).

MSHA also asserts that blocking of the scoop wheels is necessary to prevent lateral movement. A parallel safety standard for metal/nonmetal mining does require blocking to prevent “rolling.” However, that word is not included in 30 C.F.R. §75.1726 (a). Testimony indicates the scoop parking brake is sufficient to hold the scoop in place, even in the Mettiki Mine. I also note insufficient evidence to demonstrate that MSHA requires physical blocking of the wheels on specifically designed mobile elevated work platforms. Consequently, imposition of a requirement to chock the scoop wheels is not justified.

Mettiki’s scoop modification also includes the use of a bucket control lever locking pin. I consider this modification and the installation of the pin while the miners are working in the scoop bucket an important additional safety precaution. The bucket control lever locking pin helps reduce the risk of inadvertent movement of the bucket and enhances the first purpose of the standard.

The petition modification (JX 1) contains two other operational requirements that relate to

the inadvertent movement of the scoop bucket. Mettiki will require the scoop operator to remain in the scoop cab anytime a miner occupies the scoop bucket. In addition, the scoop operator will place the scoop transmission in neutral and set the parking brake. Both procedures provide important safety protection.

The second purpose of the standard as applied by MSHA is more problematic and represents the key issue in this case. At least since 1972 (MX 14), MSHA has been concerned about transporting miners in scoop buckets and continues to express that concern through the application of this standard at the Mettiki Mine. In an attempt to eliminate potential injury to miners due to transportation in scoop buckets, MSHA has applied the standard at Mettiki to preclude any transportation of miners in the scoop buckets. On the other hand, Mettiki does not see any problems with its proposal to use the modified scoop to move its miners a short distance, four to ten feet at a time, at a slow speed, from one work area to another.

The absolute prohibition of moving miners in scoop buckets at Mettiki seems too broad. There is sufficient evidence in the record to justify MSHA's opposition of long travel, or "man-trips" in scoop buckets. And, arguably any transport of miners in a scoop bucket carries some risk. However, significantly, MSHA has apparently determined the risks associated with tramming are insufficient to prohibit tramming of coal miners in scoop buckets. Mr. Angel, Mr. Porter and Mr. Braenovich testified MSHA does permit the tramming of coal miners in scoop buckets under certain conditions. In light of MSHA's policy of permitting tramming in coal mine scoop buckets, Mettiki can meet the second purpose of the standard's application, the reduction of transportation injuries, by complying with MSHA restrictions for tramming.

Mr. Porter set out four specific conditions MSHA imposes to permit tramming of coal miners: the scoop is lowered to its lowest limit, the ejector blade is locked out, men and material are not in the same bucket, and the scoop travels in a backward direction. Mettiki's modification petition already satisfies two of the conditions. Prior to tramming, the bucket will be lowered to the a small distance above the mine floor. And, the bucket control lever locking pin blocks the ejector control and prevents accidental activation of the ejector blade (see page 14, Mr. Blythe's testimony).

On the other hand, the petition for modification does not address the other two MSHA criteria. MSHA requires tramming to be accomplished in a rearward direction. I consider this restriction to be an important safety consideration that must be followed by Mettiki during any tramming of its miners. Accident evidence disclosed at least one crushing death to a miner due to forward motion of a scoop, or front-end loader bucket. Tramming in a direction away from the scoop bucket will help reduce the possibility that a miner who accidentally falls out of the scoop will be run over by the moving equipment. Since I have authority under the regulations to add additional terms to a modification petition, I will impose a rearward motion restriction on Mettiki's proposal to tram miners in a scoop bucket from one work station to the next.²³

²³Under 30 C.F.R. § 44.4 (c), orders granting petitions for modification may contain special terms and conditions to assure adequate protection to miners. The modification together with and conditions shall have the
(continued...)

The last tramming restriction precludes both men and material from being in the bucket. The only significant material in the Mettiki operation is the power cable. Considering the very short distance the scoop travels during the power cable hanging operation and having reviewed the photographs and video of the procedures, I do not find sufficient safety hazards to warrant applying this restriction to Mettiki's tramming miners.

In addition to the previously discussed MSHA tramming procedures, another necessary restriction is a limit on the distance miners may be trammed. Clearly, MSHA does not permit long transits of miners in scoop buckets. Considering that the greatest distance a scoop must travel at any one time during elevated work in the Mettiki Mine is the distance between roof support cribs at opposite sides of the mine corridor, I will also impose a sixteen foot length of travel limitation to the modification. Consequently, Mettiki may tram its coal miners from one work area to another work station; however, the scoop may travel no more than sixteen feet at any one time.

For the reasons noted above, I find Mettiki's modification of the EIMCO 913 scoop, with the noted operational restrictions, achieves the same result as the application of 30 C.F.R. §75.1726 (a). The essential modifications are three load locking valves (two on the scoop bucket lift arms and one on the tilt actuator) and the bucket control lever locking pin. As operational restrictions, the miners may move from one work station to the next only if (1) the scoop bucket is lowered to a safe tramming level and the bucket control lever locking pin is installed; (2) the scoop travels at a safe tramming speed, no more than ten to sixteen feet at a time; (3) the scoop moves in a direction away from the scoop bucket; (4) the scoop operator remains in the scoop cab while miners occupy the scoop bucket; and, (5) at each work station, when the miners work in the elevated scoop bucket, the scoop operator places the scoop transmission in neutral and activates the parking brake.

Same Measure of Protection

In evaluating the net, or overall, safety effect of Mettiki's use of a modified scoop as a mobile elevated work platform, I must consider all the advantages and disadvantages of the proposal outside the purposes of the standard.

Beyond the hazards already discussed that are associated with sudden drops in the scoop bucket and tramming, use of the modified scoop does raise concerns about slips and falls from the bucket platform during work. To reduce that hazard, Mettiki's modification includes the addition of two side bars and a chain, at waist level across the bucket mouth. I consider these safety features sufficient, since the bucket is not raised to extreme height in the Mettiki Mine for the roof work. I also believe the chain presents a minimal "tripping" hazard since it is positioned nearly waist-high.

On the benefits side of the analysis, use of the modified scoop, with its rigid metal walls and back, will help protect miners doing elevated work from rolling out of the mine walls. In light of the

²³(...continued)
same effect as a mandatory standard.

soft nature of the coal in the Mettiki Mine, this additional protection may prove valuable.

Upon review of the entire record, I ultimately find Mettiki's modification petition, with the previously discussed additional operational requirements, does not cause an overall reduction of safety to the miners. The Mettiki's modified scoop with the operational restrictions will provide at least the same measure of protection to the miners as 30 C.F.R. §75.1726 (a).

Conclusion

Because Mettiki's modified scoop, with the stated operational restrictions, achieves the safety purpose of 30 C.F.R. §75.1726 (a) and affords at least the same measure of safety protection, Mettiki's request for modification of the application of 30 C.F.R. §75.1726 (a) at Mettiki Mine #18-006211 should be approved.²⁴

ORDER

Pursuant to Section 101 (c) of the Federal Mine Safety and Health Act of 1977, 30 U.S.C. § 811 (c), METTIKI COAL's Petition for Modification of the application of 30 C.F.R. § 75.1726 (a) in the Mettiki Mine # 18-00621 is **GRANTED**, conditioned upon:

A. Compliance with the following modifications to the EIMCO 913 scoop and bucket:

1. Installation of internal, automatic, hydraulic load locking valves on the scoop bucket lift arms and the tilt actuator;
2. Installation and use of a scoop bucket control lever locking pin; and,

²⁴As a former Air Force ground and flying safety officer, I feel compelled to state that my approval of Mettiki's modification petition is not an endorsement for the practice of using a scoop as an elevated work platform. My decision only represents a determination that Mettiki has met its legal burden for approval of its petition. Although my decision permits Mettiki to use the modified scoop, I urge the company to consider that while the procedure is relatively safe, there are clearly safer alternatives. In other words, a modified scoop is **not** the **safest** method of performing elevated work in the Mettiki Mine. A more prudent approach is mobile elevated work platform that satisfies the more stringent ANSI safety standards. ANSI safety features include non-slip surfaces, specifically designed over head protection, and controls on the platform. In addition, evidence in the record suggests the EIMCO 913 platform attachment may be a safer and viable alternative to the modified scoop. Based on its load limitation, the platform attachment could be used for both hanging belt chain and building roof support cribs. And, with some operational changes involving smaller power cable lengths, the platform attachment would also be available for hanging power cable.

3. Installation of side bars on the scoop bucket and a waist-high chain across the bucket face.

B. Compliance with the following operational restrictions:

1. If the scoop is moved while miners are in the modified bucket:
 - a. The bucket must first be lowered to a safe tramming level and the bucket control lever locking pin installed;
 - b. The scoop must travel at no faster than a safe tramming speed and no further than sixteen feet at one time; and,
 - c. The scoop must travel in the direction opposite the scoop bucket.
2. Once the scoop has stopped at a work station, the scoop operator will place the scoop transmission in neutral and engage the parking brake.
3. The scoop operator will remain in the scoop cab whenever miners are in the scoop bucket.

SO ORDERED:

RICHARD T. STANSELL-GAMM
Administrative Law Judge

NOTICE OF APPEAL RIGHTS: Pursuant to 30 C.F.R. § 44.33, any party may appeal from this Initial Decision and Order by filing with the Assistant Secretary, U.S. Department of Labor, a notice of appeal within 30 days after service of this decision. Unless an appeal is filed in accordance with 30 C.F.R. § 44.33, this decision becomes final upon the 30th day after service. 30 C.F.R. §44.32.